

## **Nebraska Department of Agriculture Avian Influenza Surveillance and Response**

April 2006

The Nebraska Department of Agriculture, in collaboration with the United States Department of Agriculture (USDA) and other agencies, is participating in the surveillance and response to Avian Influenza Virus in domestic poultry.

Avian Influenza (AI) is a disease which affects most species of birds worldwide. There are many strains of the virus causing varying amounts of clinical illness in poultry. In rare instances, strains of AI have mutated and become potent human pathogens. It is thought that the pandemic flu of 1918 was caused by one of these mutations of AI.

Because of the threat to poultry and the potential for mutation, the State of Nebraska cooperates with a federal surveillance and response plan called the National Poultry Improvement Plan. The ongoing surveillance in commercial (broiler, layer, and turkey) poultry flocks is to detect Low Pathogenic Avian Influenza (LPAI). However, this same surveillance testing will detect Highly Pathogenic Avian Influenza (HPAI). The terms used to refer to different strains as Highly or Low Pathogenic pertains to the genetic features of the virus and the severity of disease and the death loss in poultry.

If LPAI is detected in a poultry flock, measures are taken to prevent the spread of the disease in the poultry population. These strains of the virus cause no known serious threat to human health.

HPAI in birds is considered a Foreign Animal Disease, for which specific response plans are in place. If HPAI is confirmed, procedures are designed to contain and eradicate the outbreak. In addition to technical support and assistance from USDA, the Nebraska Department of Agriculture will be drawing on a number of federal, state, and local resources such as emergency managers, law enforcement, and especially local veterinarians who have received special training in foreign animal disease response.

For backyard poultry producers, the Nebraska Cooperative Extension Service's current program provides educational materials to poultry owners, free testing for Avian Influenza and other poultry diseases, and free postmortem diagnosis of dead birds.

If HPAI is suspected in a poultry flock:

- One of nine state or federal veterinarians in Nebraska who are Foreign Animal Disease Diagnosticians is assigned to collect test samples and initiate field activities.
- Samples from the suspect flock are submitted to the National Veterinary Services Laboratory to determine status of the flock.
- An elevated biosecurity level is implemented while waiting for status results, including quarantine of the suspect flock, as in other foreign animal disease outbreaks.
- Communication strategies are employed to notify the appropriate authorities and industry representatives.
- Specially trained veterinarians conduct investigations of linked premises - linked to the suspect flock due to contact by people, equipment, or movement of poultry.

- Health precautions are taken due the potential public health concerns. A minimum number of responders are exposed to the flocks, and personal protective equipment is utilized.
- Cleaning and disinfecting of vehicles, equipment, and the people authorized to enter or leave the quarantine area are initiated.

Upon a positive confirmation of HPAI:

- The Nebraska Department of Agriculture enlists resources to issue and enforce a larger quarantine involving different zones and different restrictions of movement, encircling the positive flock(s) as well as other linked premises.
- Appropriate authorities, such as public health officials, as well as the public, are informed in a timely manner.
- Predetermined procedures direct disposition of the poultry and eggs.
- Positive flocks are depopulated. A disposal method and site are chosen according to appropriate environmental conditions.
- Surveillance within the quarantine zones and within monitoring zones is conducted. Samples are submitted to an authorized laboratory.
- Vaccination of poultry may be used as a barrier for spread of the virus.
- Cleaning, disinfection, and inspection of buildings and premise equipment are completed before repopulation begins.
- Monitoring continues for Nebraska with the goal of again attaining an Avian Influenza free status.

Exotic bird sales, swap meets, and bird exhibitions also provide opportunities for the AI virus to be transmitted between birds, and, if present, the opportunity for human exposure. Although there are few of these events in Nebraska, they are coming under increasing scrutiny. The Nebraska Department of Agriculture will implement additional plans for monitoring these, as well as gamebirds raised for release, as anticipated federal funding is received.

Nebraska Game and Parks Commission (NGPC), in cooperation with the U.S. Department of the Interior, is closely monitoring migratory birds with an intense surveillance testing program. USDA, Wildlife Services will also be testing migratory birds and gamebirds. For more information on this program, contact the numbers below.

It is important to note that there is no HPAI in the United States at this time. Commercial poultry producers are enforcing strict biosecurity measures to protect their flocks. Surveillance is underway to detect any introduction of the virus into birds in Nebraska. Early identification is critical. Early response is vital.

Numbers to call if disease is suspected:

Nebraska Department of Agriculture, Bureau of Animal Industry	(402) 471-2351
USDA, APHIS, Area Veterinarian-in-Charge	(402) 434-2300
USDA, Wildlife Services	(402) 434-2340
USDA Hotline	(866) 536-7593
University of Nebraska Cooperative Extension	(402) 472-6422
Nebraska Game and Parks Commission (for wild and migratory birds)	(402) 471-0641